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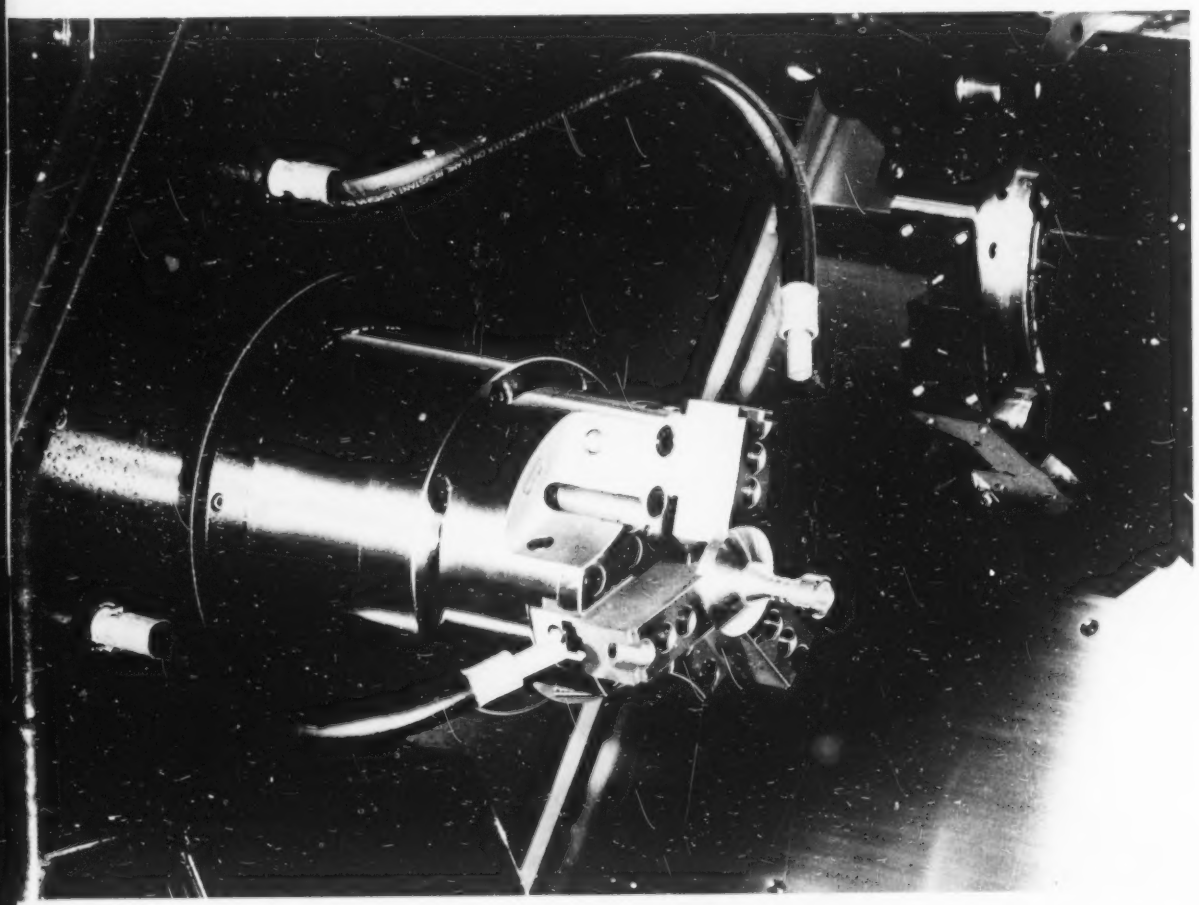

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NEXT MONTH:
A new look at a new Annual Issue.

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DiPietro Wins Robotics Award

Frank DiPietro, director of production engineering with General Motors Corp.'s C-P-C car group, has been selected as a 1985 Joseph F. Engelberger Award winner by the Robotics Industries Assn. (RIA) for his extensive application work with robotic technology.

As co-chairman of GM's Corporate Robotics and Machine Intelligence Council since 1980, DiPietro has been a driving force behind the explosive growth of robotics applications at GM. There were roughly 300 robots at work in GM facilities in 1980. Under DiPietro's encouragement, their application has dramatically increased to over 4000 installed robots today.

Japanese Robot Markets Expand

The *Japan Economic Journal* reports that Japan's manufacture of industrial robots rose sharply in 1984 due to Japanese industries' increased capital spending and rising exports.

A survey of 436 firms also revealed that assembly line robots have come into wide use in Japanese industries and the sale of high-tech robots with visual sensors increased substantially in 1984.

The sales of 48 robot makers totaled nearly $726 million last year, up almost 37 percent from the previous year. On the basis of continuing strong demand worldwide for industrial robots, the *Journal* estimates Japan's robot market will grow by more than 30 percent this year to about $1.2 billion.

INDUSTRY REPORT

More Powder Metallurgy

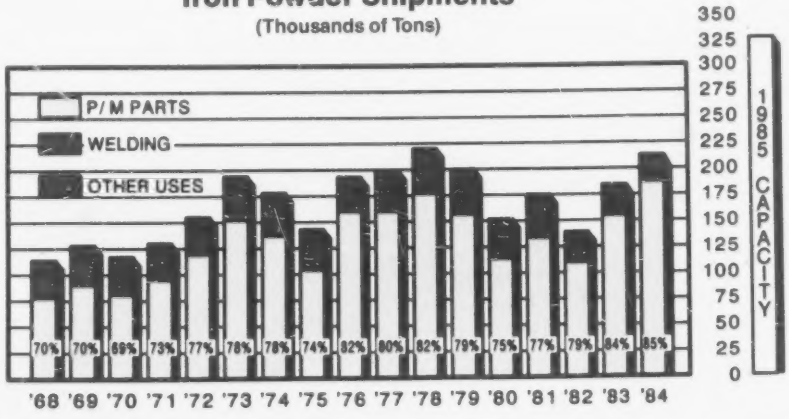
Precision metal parts for automobiles, computer equipment and other consumer and industrial products are being made more cost effective and reliable through increased use of powder metallurgy, according to Kempton H. Roll, executive director of the Metal Powder Industries Federation.

Roll reports that North American metal powder shipments increased 19 percent in 1984 to more than 300,000 tons. Registering gains were iron and steel, stainless steel, copper, aluminum, molybdenum, tungsten, tungsten carbide, nickel and tin powders.

The largest volume powders, iron and steel, reached 216,000 tons, a gain of almost 18 percent over 1983. Of this amount, powder metal parts shipments were 183,000 tons, a 19 percent increase.

The automotive industry will continue increasing its use of powder metal parts in engines, chassis, transmissions and accessories. Roll says one major American car maker is now committed to using powder metal forged connecting rods and also plans to dedicate a facility for the manufacture of P/M camshafts, both parts to appear in 1987 models.

Iron Powder Shipments
(Thousands of Tons)



Source: Metal Powder Industries Federation
Metal Powder Producers Association

GM-UAW Health Study

Using a $4 million fund set aside for occupational health research, General Motors Corp. and the United Auto Workers have contracted for a research team from Harvard University and the University of Massachusetts to conduct a four-year study to determine adverse health effects, if any, related to prolonged exposure to machining fluids.

Involving Saginaw Div. plants in Saginaw and Detroit and the Hydra-matic operations in Ypsilanti, MI, the study will be multifaceted. As many as 40,000 medical histories of individuals who have worked at these facilities